Gas danger exposes flaws in code for foam insulation of homes
Veitch, Andrew
The Guardian (1959-2003); Mar 15, 1982;
ProQuest Historical Newspapers: The Guardian (1821-2003) and The Observer (1791-2003)
pg. 3

Gas danger exposes flaws in code for foam insulation of homes

By Andrew Veitch

EXPERTS from the Health and Safety Executive are investigating suspected leaks of formaldehyde gas in Fairlop School, Hainault, Essex. A teacher and several children complained of headaches and sickness after the sixth form block was insulated with UF foam.

A Redbridge education department spokesman said that tests had not revealed the presence of formaldehyde, but the investigation was continuing.

Schools, hospitals, offices, old people's homes, blocks of flats, indeed anything over 12 metres high, are not covered by BSI standards.

A LARGE gap has appeared in the safeguards covering the insulation of homes with formaldehyde foam, the material banned by the US consumer safety commission because of health hazards.

Experts at the Department of Environment's Building Research Establishment are advising elderly people, and people with respiratory problems not to have the foam installed. And following increasing concern about the hazards, the British Standards Institution is considering revising the strict code of practice governing its use.

Called UF (urea-formaldehyde) foam, it is the most effective insulating material for cavity walls. British firms insulate more than 150,000 houses a year with it. The business is worth around £30 million a year. The firms have maintained that the code of practice, which is policed by the BSI, is strict enough to safeguard consumers. It covers the manufacture and installation of the foam.

But it does not specify action to be taken when the process goes wrong and poisonous gas given off by the foam leaks into the house. It was the hazard posed by this leaking gas that prompted the US commission's ban.

What it comes down to, according to the BSI spokesman, is that if occupants can smell the gas for more than four weeks, and the installer has failed to solve the problem, they contact the supplier of the chemical, and it is then up to the supplier to decide what action is taken.

In practice, according to the industry bodies, the National Cavity Insulation Association, and the Cavity Foam Bureau, two methods of "neutralising the formaldehyde" are to place "a little household ammonia in a bowl in the room", and to inject ammonia into the foam in the cavity. The latter method stabilises the foam and stops gas being given off.

Both practices are at odds with Building Research Establishment methods. "We do not recommend the use of ammonia," said a spokesman.

One of the establishment's advisory officers said: "Ammonia has a limited ameliorating effect. It is only a holding measure. It will not take away the problem. It is certainly not a cure."

Symptoms attributed to formaldehyde in homes, according to a leading article in the Lancet, include breathlessness, headache, rhinitis, eye irritation, cough, colds, rash, malaise, sore throat, vomiting (in children), drowsiness, and memory lapses.

People are unlikely to smell the gas at concentrations lower than 0.5 ppm. A BSI survey of 150,000 homes found that in more than 300 cases, customers complained of a smell. "There is mounting evidence," the Lancet reported, "that adverse effects of formaldehyde can arise at levels well below 1 ppm." The limit to which workers can be exposed in factories is 2 ppm.

"If the foam has been injected correctly, according to the BSI code of practice, there should be no problem," said the Building Research Establishment's advisory officer.

The establishment runs an investigation service to determine the concentration of the gas, but they charge around £300 for it.

The Cavity Foam Bureau said: "A very small quantity of formaldehyde may enter the home following insulation, and whilst not considered to be a health hazard, this may cause slight temporary discomfort." Customers are advised to open their windows so the gas is dispersed.

Firms registered with the BSI are required to record all complaints and what action was taken. That record must be available to BSI inspectors. BSI has the right to withdraw registration if they are not satisfied with the company's conduct. Should this occur, said the bureau, it would be difficult for a firm to obtain work.

Neither group accepts the evidence that it might cause cancer, evidence which finally prompted the US consumer safety commission to vote for a ban. It came from a US Chemical Industry Institute of Toxicology study which found that at very high doses — 6ppm up to 15ppm — rats developed cancer of the nose. When rats were exposed to 2ppm, they developed polypoid adenomas. These are not cancerous. Nor are they very nice. There are tumours attached by a stalk to the surface from which they spring. They are removed surgically.